## LEWIS 10/ 537 704 = chi conotoxins (Group I; Clms 1-7; SEQ ID NO: 4)

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                 "Ask CAS" for self-help around the clock
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                 INSPEC enhanced with 1898-1968 archive
         AUG 09
NEWS
      3
         AUG 28 ADISCTI Reloaded and Enhanced
NEWS 4
                 CA(SM)/CAplus(SM) Austrian patent law changes
NEWS 5
         AUG 30
         SEP 11 CA/CAplus enhanced with more pre-1907 records
NEWS 6
         SEP 21 CA/CAplus fields enhanced with simultaneous left and right
NEWS 7
                 truncation
                 CA(SM)/CAplus(SM) display of CA Lexicon enhanced
NEWS 8
         SEP 25
                 CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 9
         SEP 25
                 CAS REGISTRY(SM) updated with amino acid codes for
NEWS 10 SEP 25
pyrrolysine
                 CEABA-VTB classification code fields reloaded with new
NEWS 11 SEP 28
                 classification scheme
                 LOGOFF HOLD duration extended to 120 minutes
 NEWS 12 OCT 19
                 E-mail format enhanced
NEWS 13
         OCT 19
                 Option to turn off MARPAT highlighting enhancements available
         OCT 23
 NEWS 14
                 CAS Registry Number crossover limit increased to 300,000 in
 NEWS 15
         OCT 23
                 multiple databases
                 The Derwent World Patents Index suite of databases on STN
         OCT 23
 NEWS 16
                 has been enhanced and reloaded
                 CHEMLIST enhanced with new search and display field
NEWS 17
         OCT 30
                  JAPIO enhanced with IPC 8 features and functionality
         NOV 03
 NEWS 18
                 CA/CAplus F-Term thesaurus enhanced
         NOV 10
 NEWS 19
                 STN Express with Discover! free maintenance release Version
 NEWS 20
         NOV 10
                  8.01c now available
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 NEWS 21
         NOV 20
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 NEWS 22 NOV 20 CA/CAplus to MARPAT accession number crossover limit
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                  to 50,000
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 NEWS 23
         DEC 01
                 CAS REGISTRY chemical nomenclature enhanced
 NEWS 24 DEC 11
                 WPIDS/WPINDEX/WPIX manual codes updated
 NEWS 25
         DEC 14
                  GBFULL and FRFULL enhanced with IPC 8 features and
         DEC 14
 NEWS 26
                  functionality
                  CA/CAplus pre-1967 chemical substance index entries enhanced
 NEWS 27
         DEC 18
                  with preparation role
                  CA/CAplus patent kind codes updated
 NEWS 28 DEC 18
                 MARPAT to CA/CAplus accession number crossover limit
 NEWS 29
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increased
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                  MEDLINE updated in preparation for 2007 reload
 NEWS 30 DEC 18
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NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT

MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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FULL ESTIMATED COST

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=> s XGVCCGYKLCHXC/sqsp L1 11 XGVCCGYKLCHXC/SQSP

=> D CN SQL SEQ 1-11

L1 ANSWER 1 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
CN Peptide, (Xaa-Gly-Val-Cys-Cys-Gly-Tyr-Lys-Leu-Cys-His-Xaa-Cys) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 5: PN: WO2004050690 SEQID: 4 unclaimed protein SQL 13

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           1-13
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CN
     cysteinylglycyl-L-tyrosyl-L-lysyl-L-leucyl-L-cysteinyl-L-histidyl-(4R)-4-
     hydroxy-L-prolyl-, cyclic (4.fwdarw.13),(5.fwdarw.10)-bis(disulfide) (9CI)
     (CA INDEX NAME)
OTHER NAMES:
     128: PN: WO2004050688 SEQID: 139 claimed protein
CN
SOL
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SEQ
           HITS AT:
           1 - 13
     ANSWER 3 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
L1
     L-Cysteine, L-norleucylglycyl-L-valyl-L-cysteinyl-L-cysteinylglycyl-L-
     tyrosyl-L-lysyl-L-leucyl-L-cysteinyl-L-histidyl-(4R)-4-hydroxy-L-prolyl-,
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OTHER NAMES:
     108: PN: WO2004050688 SEQID: 119 claimed protein
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           HITS AT:
           1-13
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     L-Cysteine, N3-(N-acetyl-L-tryptophyl)-(3S)-3,7-diaminoheptanoylglycyl-L-
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cysteinyl-
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 SQL 13
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 SEQ
 HITS AT:
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      ANSWER 6 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
 Ll
      L-Cysteinamide, 5-oxo-D-prolylglycyl-L-valyl-L-cysteinyl-L-
 cysteinylglycyl-
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L-tyrosyl-L-lysyl-L-leucyl-L-cysteinyl-L-histidyl-(4R)-4-hydroxy-L-prolyl-
     , cyclic (4.fwdarw.13),(5.fwdarw.10)-bis(disulfide) (9CI) (CA INDEX NAME)
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SEO
           HITS AT:
           1-13
**RELATED SEOUENCES AVAILABLE WITH SEQLINK**
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1.1
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SEO
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**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     ANSWER 8 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
T.1
     L-Cysteine, 5-oxo-L-prolylglycyl-L-valyl-L-cysteinyl-L-cysteinylglycyl-L-
CN
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SQL 13
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**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
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     L-Cysteinamide, 5-oxo-L-prolylglycyl-L-valyl-L-cysteinyl-L-
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     L-prolyl-, cyclic (4.fwdarw.13),(5.fwdarw.10)-bis(disulfide) (9CI) (CA
     INDEX NAME)
SQL 13
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SEO
HITS AT:
           1-13
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     ANSWER 10 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
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cysteinylglycyl-
     L-tyrosyl-L-lysyl-L-leucyl-L-cysteinyl-L-histidyl-(4R)-4-hydroxy-L-prolyl-
      , cyclic (5.fwdarw.10)-disulfide (9CI) (CA INDEX NAME)
SQL
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SEQ
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HITS AT:

1-13

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

ANSWER 11 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN L-Cysteinamide, 5-oxo-L-prolylglycyl-L-valyl-L-cysteinyl-L-

cysteinylglycyl-

L-tyrosyl-L-lysyl-L-leucyl-L-cysteinyl-L-histidyl-(4R)-4-hydroxy-L-prolyl-, cyclic (4.fwdarw.13), (5.fwdarw.10)-bis(disulfide) (9CI) (CA INDEX NAME) SQL 13

1 XGVCCGYKLC HXC SEO

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\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

=> file CAPLUS COST IN U.S. DOLLARS

TOTAL SINCE FILE SESSION ENTRY 99.94 99.73

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=> s L1 and PATENT/DT

2 L1 ·

5541564 PATENT/DT

2 L1 AND PATENT/DT L2

=> D L2 BIB ABS

ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN L2

2004:493731 CAPLUS AN

141:47381 DN

Therapeutic .chi.-conotoxin peptides (-I) ΤI

Lewis, Richard James; Alewood, Paul Francis; Alewood, Dianne; Palant, Elka IN

Xenome Ltd., Australia PΑ

PCT Int. Appl., 57 pp. SO CODEN: PIXXD2

Patent DT

English LΑ

FAN.CNT 1

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DATE
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                                 DATE
                          KIND
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PRAI US 2002-430306P
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     WO 2003-AU1605
     MARPAT 141:47381
os
     The invention discloses an isolated, synthetic or recombinant
ÀΒ
      .chi.-conotoxin peptide comprising the sequence Xaa1-Xaa2-Gly-Val-Cys-Cys-
     Gly-Tyr-Lys-Leu-Cys-His-Pro-Cys (Xaa1 = N-terminal pyroglutamate,
     D-pyroglutamate; Xaa2 = Asn, deletion; or such a sequence in which
      .gtoreq.1 Cys is replaced with corresponding D-amino acid and/or one or
     more amino acid residues other than Cys has undergone a side chain
     modification), or a salt, ester, amide or prodrug thereof. The invention
     also discloses pharmaceutical compns. comprising these peptides, as well
     as the use of these peptides in the prophylaxis or treatment of
      conditions, such as, but not limited to, pain, inflammation, incontinence,
      cardiovascular conditions, and mood disorders.
               THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 2
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
 => d L2 1 BIB ABS
      ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
L2
      2004:493731 CAPLUS
 AN
      141:47381
 DN
      Therapeutic .chi.-conotoxin peptides (-I)
 ΤI
      Lewis, Richard James; Alewood, Paul Francis; Alewood, Dianne; Palant, Elka
 IN
      Xenome Ltd., Australia
 PA
      PCT Int. Appl., 57 pp.
 SO
      CODEN: PIXXD2
 DT
      Patent
      English
 LΑ
 FAN.CNT 1
                                               APPLICATION NO.
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PRAI US 2002-430306P
                             Ρ
                                    20021202
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     WO 2003-AU1605
                             W
     MARPAT 141:47381
OS.
     The invention discloses an isolated, synthetic or recombinant
AB
     .chi.-conotoxin peptide comprising the sequence Xaa1-Xaa2-Gly-Val-Cys-Cys-
     Gly-Tyr-Lys-Leu-Cys-His-Pro-Cys (Xaa1 = N-terminal pyroglutamate,
     D-pyroglutamate; Xaa2 = Asn, deletion; or such a sequence in which
     .gtoreq.1 Cys is replaced with corresponding D-amino acid and/or one or
     more amino acid residues other than Cys has undergone a side chain
     modification), or a salt, ester, amide or prodrug thereof. The invention
     also discloses pharmaceutical compns. comprising these peptides, as well
     as the use of these peptides in the prophylaxis or treatment of
     conditions, such as, but not limited to, pain, inflammation, incontinence,
     cardiovascular conditions, and mood disorders.
               THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
                ALL CITATIONS AVAILABLE IN THE RE FORMAT
=> d L2 2 BIB ABS
    ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
      2004:493729 CAPLUS
AN
      141:47357
DN
     Neuronal amine transporter-inhibiting .chi.-conotoxin peptides (-II)
ΤI
     Lewis, Richard James; Alewood, Paul Francis; Alewood, Dianne; Palant, Elka
IN
      Xenome Ltd., Australia
PA
      PCT Int. Appl., 156 pp.
SO
      CODEN: PIXXD2
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      Patent
      English
LA
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      MARPAT 141:47357
 OS
      An isolated, synthetic or recombinant .chi.-conotoxin peptide having the
AB
      ability to inhibit neuronal amine transporter comprises
      Cys-Cys-Gly-Tyr-Lys-Leu-Cys-Xaa5-Xaa6-Cys (Xaa5, Xaa6 = absent or any
```

TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

amino acid residue except Cys, or a sequence in which Gly, Tyr, Lys or Leu are subject to conservative amino acid substitution or side chain modification; with proviso), or a salt, ester, amide, prodrug or cyclized deriv. thereof.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file biosis embase medline agricola TOTAL SINCE FILE COST IN U.S. DOLLARS ENTRY SESSION 12.01 111.95 FULL ESTIMATED COST TOTAL SINCE FILE DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SESSION ENTRY -2.25 -2.25 CA SUBSCRIBER PRICE

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=> s L1

L3 0 L1

=> s chi conotoxin

L4 12 CHI CONOTOXIN

## => d L4 1-12 BIB ABS

- L4 ANSWER 1 OF 12 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
- AN 2006:645200 BIOSIS
- DN PREV200600636757
- TI Cyclic MrIA: A stable and potent cyclic conotoxin with a novel topological fold that targets the norepinephrine transporter.
- AU Lovelace, Erica S.; Armishaw, Christopher J.; Colgrave, Michelle L.; Wahlstrom, Maria E.; Alewood, Paul F.; Daly, Norelle L.; Craik, David J. [Reprint Author]
- CS Univ Queensland, Inst Mol Biosci, Brisbane, Qld 4072, Australia d.craik@imb.uq.edu.au
- SO Journal of Medicinal Chemistry, (NOV 2 2006) Vol. 49, No. 22, pp. 6561-6568.

  CODEN: JMCMAR. ISSN: 0022-2623.
- DT Article
- LA English
- ED Entered STN: 22 Nov 2006 Last Updated on STN: 22 Nov 2006
- Conotoxins, disulfide-rich peptides from the venom of cone snails, have created much excitement over recent years due to their potency and specificity for ion channels and their therapeutic potential. One recently identified conotoxin, MrIA, a 13-residue member of the chi-conotoxin family, inhibits the human norepinephrine transporter (NET) and has potential applications in the treatment of pain. In the current study, we show that the, beta-hairpin structure of native MrIA is retained in a synthetic cyclic version, as is biological activity at the NET. Furthermore, the cyclic version has increased resistance to trypsin digestion relative to the native peptide, an intriguing result because the cleavage site for the trypsin is not close to the cyclization

site. The use of peptides as drugs is generally hampered by susceptibility to proteolysis, and so, the increase in enzymatic stability against trypsin observed in the current study may be useful in improving the therapeutic potential of MrIA. Furthermore, the structure reported here for cyclic MrIA represents a new topology among a growing number of circular disulfide-rich peptides.

- L4 ANSWER 2 OF 12 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
- AN 2006:30215 BIOSIS
- DN PREV200600030783
- TI Backbone cyclization improves the enzymatic stability of chiconotoxin, MrIA, whilst maintaining its structure and NET-modulating activity.
- AU Lovelace, Erica S. [Reprint Author]; Armishaw, Christopher J.; Colgrave, Michelle L.; Alewood, Paul F.; Daly, Norelle L.; Craik, David J.
- CS Univ Queensland, Inst Mol Biosci, Brisbane, Qld 4072, Australia
- Biopolymers, (2005) Vol. 80, No. 4, pp. 585.

  Meeting Info.: 19th American Peptide Symposium. San Diego, CA, USA. June 18 -23, 2005. Amer Peptide Soc; AAPPTEC; Amer Peptide Co; Amer Hlth/GE Healthcare; Amgen Inc; BACHEM; BIOMOL Int; C S Bio Co; Cambridge Res Biochem; Chemico Int Inc; Chem Today; Eli Lilly & Co; ESCOM Sci Fdn; Genentech; Hoffman-La Roche Inc; Merck Res Lab; Midwest Bio-Tech Inc; NeoMPS Inc; New England BioLabs Inc; Novo Nordisk A/S; Peptides Int Inc; PharmaChem; PolyPeptide Lab Inc; RSP Amino Acide LLC; Senn Chem USA; Sinopep Pharmaceut Inc; SynPep Corp; Synthetech Inc; UCB Bioproducts Inc. CODEN: BIPMAA. ISSN: 0006-3525.
- DT Conference; (Meeting)
  Conference; (Meeting Poster)
- LA English
- ED Entered STN: 28 Dec 2005 Last Updated on STN: 28 Dec 2005
- L4 ANSWER 3 OF 12 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
- AN 2004:422061 BIOSIS
- DN PREV200400427664
- TI Peptides.
- AU Lewis, Richard James [Inventor, Reprint Author]; Alewood, Paul Francis [Inventor]; Sharpe, Iain Andrew [Inventor]
- 'CS Woolloongabba, Australia
  ASSIGNEE: The University of Queensland, Queensland, Australia
- PI US 6794361 20040921
- Official Gazette of the United States Patent and Trademark Office Patents, (Sep 21 2004) Vol. 1286, No. 3. http://www.uspto.gov/web/menu/patdata.html . e-file.
  - ISSN: 0098-1133 (ISSN print).
- DT Patent
- LA English
- ED Entered STN: 3 Nov 2004
  - Last Updated on STN: 3 Nov 2004
- The invention relates to an isolated, synthetic or recombinant chiconotoxin peptide having the ability to inhibit a neuronal
  amine transporter, nucleic acid molecules encoding all or part of such
  peptides, antibodies to such peptides and uses and methods of treatment
  involving them.
- L4 ANSWER 4 OF 12 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
- AN 2006557072 EMBASE
- TI Therapeutic applications of conotoxins that target the neuronal nicotinic acetylcholine receptor.
- AU Livett B.G.; Sandall D.W.; Keays D.; Down J.; Gayler K.R.; Satkunanathan N.; Khalil Z.
- CS B.G. Livett, Department of Biochemistry and Molecular Biology, Bio21

Molecular Science and Biotechnology Institute, University of Melbourne, Vic. 3010, Australia. b.livett@unimelb.edu.au

SO Toxicon, (1 Dec 2006) Vol. 48, No. 7, pp. 810-829. .

Refs: 130

ISSN: 0041-0101 CODEN: TOXIA6

PUI S 0041-0101(06)00249-2

CY United Kingdom

DT Journal; Article

FS 008 Neurology and Neurosurgery

030 Pharmacology

037 Drug Literature Index

038 Adverse Reactions Titles

052 Toxicology

LA English

SL English

ED Entered STN: 1 Dec 2006

Last Updated on STN: 1 Dec 2006

Pain therapeutics discovered by molecular mining of the expressed genome of Australian predatory cone snails are providing lead compounds for the treatment of neurological diseases such as multiple sclerosis, shingles, diabetic neuropathy and other painful neurological conditions. The high specificity exhibited by these novel compounds for neuronal receptors and ion channels in the brain and nervous system indicates the high degree of selectivity that this class of neuropeptides can be expected to show when used therapeutically in humans. A lead compound, ACV1 (conotoxin Vcl.1 from Conus victoriae), has entered Phase II clinical trials and is being developed for the treatment for neuropathic pain. ACV1 will be targeted initially for the treatment of sciatica, shingles and diabetic neuropathy. The compound is a 16 amino acid peptide [Sandall et al., 2003. A novel .alpha.-conotoxin identified by gene sequencing is active in suppressing the vascular response to selective stimulation of sensory nerves in vivo. Biochemistry 42, 6904-6911], an antagonist of neuronal nicotinic acetylcholine receptors. It has potent analgesic activity following subcutaneous or intramuscular administration in several preclinical animal models of human neuropathic pain [Satkunanathan et al., 2005. Alpha conotoxin Vcl.1 alleviates neuropathic pain and accelerates functional recovery of injured neurons. Brain. Res. 1059, 149-158]. ACV1 may act as an analgesic by decreasing ectopic excitation in sensory nerves. In addition ACV1 appears to accelerate the recovery of injured nerves and tissues. .COPYRGT. 2006.

L4 ANSWER 5 OF 12 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

AN 2006532716 EMBASE

TI Cyclic MrIA: A stable and potent cyclic conotoxin with a novel topological fold that targets the norepinephrine transporter.

AU Lovelace E.S.; Armishaw C.J.; Colgrave M.L.; Wahlstrom M.E.; Alewood P.F.; Daly N.E.; Craik D.J.

CS D.J. Craik, Institute for Molecular Bioscience, University of Queensland, Brisbane, QLD 4072, Australia. d.craik@imb.uq.edu.au

SO Journal of Medicinal Chemistry, (2 Nov 2006) Vol. 49, No. 22, pp. 6561-6568.

Refs: 59

ISSN: 0022-2623 CODEN: JMCMAR

CY United States

DT Journal; Article

FS 008 Neurology and Neurosurgery 029 Clinical Biochemistry

030 Pharmacology

037 Drug Literature Index

LA English

SL English

ED Entered STN: 24 Nov 2006

Last Updated on STN: 24 Nov 2006 Conotoxins, disulfide-rich peptides from the venom of cone snails, have AB created much excitement over recent years due to their potency and specificity for ion channels and their therapeutic potential. One recently identified conotoxin, MrIA, a 13-residue member of the . chi.-conotoxin family, inhibits the human norepinephrine transporter (NET) and has potential applications in the treatment of pain. In the current study, we show that the .beta.-hairpin structure of native MrIA is retained in a synthetic cyclic version, as is biological activity at the NET. Furthermore, the cyclic version has increased resistance to trypsin digestion relative to the native peptide, an intriguing result because the cleavage site for the trypsin is not close to the cyclization site. The use of peptides as drugs is generally hampered by susceptibility to proteolysis, and so, the increase in enzymatic stability against trypsin observed in the current study may be useful in improving the therapeutic potential of MrIA. Furthermore, the structure reported here for cyclic MrIA represents a new topology among a growing number of circular disulfide-rich peptides. . COPYRGT. 2006 American Chemical

- L4 ANSWER 6 OF 12 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
- AN 2006281221 EMBASE
- TI Synthetic .mu.O-conotoxin MrVIB blocks TTX-resistant sodium channel Na (V)1.8 and has a long-lasting analgesic activity.
- AU Bulaj G.; Zhang M.-M.; Green B.R.; Fiedler B.; Layer R.T.; Wei S.; Nielsen J.S.; Low S.J.; Klein B.D.; Wagstaff J.D.; Chicoine L.; Harty T.P.; Terlau H.; Yoshikami D.; Olivera B.M.
- CS G. Bulaj, Department of Biology, University of Utah, 257 S. 1400 East, Salt Lake City, UT 84112, United States. bulaj@biology.utah.edu
- SO Biochemistry, (13 Jun 2006) Vol. 45, No. 23, pp. 7404-7414. . Refs: 47

ISSN: 0006-2960 CODEN: BICHAW

- CY United States
- DT Journal; Article
- FS 024 Anesthesiology
  - 029 Clinical Biochemistry
  - 037 Drug Literature Index
  - 052 Toxicology
- LA English
- SL English
- ED Entered STN: 30 Jun 2006

Last Updated on STN: 30 Jun 2006

- .mu.O-Conotoxin MrVIB is a blocker of voltage-gated sodium channels, ΑB including TTX-sensitive and -resistant subtypes. A comprehensive characterization of this peptide has been hampered by the lack of  $\cdot$ sufficient synthetic material. Here, we describe the successful chemical synthesis and oxidative folding of MrVIB that has made an investigation of the pharmacological properties and therapeutic potential of the peptide feasible. We show for the first time that synthetic MrVIB blocks rat Na(V)1.8 sodium channels and has potent and long-lasting local anesthetic effects when tested in two pain assays in rats. Furthermore, MrVIB can block propagation of action potentials in A- and C-fibers in sciatic nerve as well as skeletal muscle in isolated preparations from rat. Our work provides the first example of analgesia produced by a conotoxin that blocks sodium channels. The emerging diversity of antinociceptive mechanisms targeted by different classes of conotoxins is discussed. .COPYRGT. 2006 American Chemical Society.
- L4 ANSWER 7 OF 12 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
- AN 2005185483 EMBASE
- TI Molecular prospecting for drugs from the sea.

Gayler K.; Sandall D.; Greening D.; Keays D.; Polidano M.; Livett B.; Down ΑU J.; Satkunanathan N.; Khalil Z. Australia. k.gayler@unimelb.edu.au CS IEEE Engineering in Medicine and Biology Magazine, (2005) Vol. 24, No. 2, so pp. 79-84. . Refs: 43 ISSN: 0739-5175 CODEN: IEMBDE United States CY Journal; General Review DT Pharmacology FS 030 Drug Literature Index 037 LA English Entered STN: 19 May 2005 ED Last Updated on STN: 19 May 2005 DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER ANSWER 8 OF 12 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights L4reserved on STN 2004277714 EMBASE AN One slip, and you're dead.... ΤI ΑU Nelson L. Nature, (24 Jun 2004) Vol. 429, No. 6994, pp. 798-799. . SO Refs: 8 ISSN: 0028-0836 CODEN: NATUAS CY United Kingdom Journal; (Short Survey) DT Drug Literature Index FS 052 Toxicology LΑ English English SLEntered STN: 22 Jul 2004 EDLast Updated on STN: 22 Jul 2004 The lethal toxins produced by cone snails are in hot demand for AB neuroscience research, and are being developed as potent drugs. Laura Nelson visits a would-be snail 'farmer', for whom milking time is fraught with danger. ANSWER 9/OF 12 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights L4reserved on STN 2004146990 EMBASE AN Conotoxins as selective inhibitors of neuronal ion channels, receptors and ΤI transporters. AU Lewis R.J. R.J. Lewis, Institute for Molecular Biosciences, University of Queensland, CS Brisbane, QLD 4072, Australia. r.lewis@imb.uq.edu.au IUBMB Life, (2004) Vol. 56, No. 2, pp. 89-93. . SO Refs: 20 ISSN: 1521-6543 CODEN: IULIF8 CY United States Journal; General Review DTNeurology and Neurosurgery 800 FS Clinical Biochemistry 029 Pharmacology 030 Drug Literature Index 037 English LА SLEnglish Entered STN: 15 Apr 2004 ED Last Updated on STN: 15 Apr 2004 Cone snails have evolved a vast array of peptide toxins for prey capture AB and defence. These peptides are directed against a wide variety of pharmacological targets, making them an invaluable source of ligands for studying the properties of these targets in normal and diseased states. A

number of these peptides have shown efficacy in vivo, including inhibitors

of calcium channels, the norepinephrine transporter, nicotinic acetylcholine receptors, NMDA receptors and neurotensin receptors, with several having undergone pre-clinical or clinical development for the treatment of pain.

- L4 ANSWER 10 OF 12 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
- AN 2003403019 EMBASE
- TI Venoms to Drugs 2002 Conference: 14-19 July 2002, Heron Island, Oueensland, Australia.
- AU Craik D.
- CS D. Craik, Institute for Molecular Bioscience, University of Queensland, Kalthera Pty. Ltd., Brisbane, QLD, Australia. d.craik@imb.uq.edu.au
- SO IDrugs, (2002) Vol. 5, No. 9, pp. 881-884. . ISSN: 1369-7056 CODEN: IDRUFN
- CY United Kingdom
- DT Journal; Conference Article
- FS 008 Neurology and Neurosurgery
  - 030 Pharmacology
  - 037 Drug Literature Index
  - 038 Adverse Reactions Titles
  - 029 Clinical Biochemistry
- LA English
- SL English
- ED Entered STN: 23 Oct 2003 Last Updated on STN: 23 Oct 2003
- As the title suggests, the Venoms to Drugs conference was a highly focused meeting which reported on various aspects of venoms, with particular reference to the development of therapeutic agents from peptidic venom components. While the location on a coral island on the Great Barrier Reef reflected a focus on venoms from marine creatures, venoms from terrestrial animals and toxins from plants were also highlighted in a number of the presentations. Peptide components from the Conus marine snail species featured heavily in the program. Several talks referred to the progression through clinical trials of a least four known conopeptides. Regarding novel disclosures, Bruce Livett from the University of Melbourne gave a particularly interesting report on a newly discovered .alpha.-conotoxin with potential analgesic applications. This molecule is quite distinct from other conotoxins currently in clinical trials for the treatment of pain, and in particular from the .omega.-conotoxin class. .COPYRGT. PharmaPress Ltd.
- L4 ANSWER 11 OF 12 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
- AN 2001134193 EMBASE
- TI Composition and therapeutic utility of conotoxins from genus Conus. Patent status 1996 2000.
- AU Jones R.M.; Cartier G.E.; McIntosh J.M.; Bulaj G.; Farrar V.E.; Olivera B.M.
- CS R.M. Jones, Cognetix Inc., 421 Wakara Way, Salt Lake City, UT 84108, United States. rjones@cognetix.com
- SO Expert Opinion on Therapeutic Patents, (2001) Vol. 11, No. 4, pp. 603-623.
  - Refs: 51
  - ISSN: 1354-3776 CODEN: EOTPEG
- CY United Kingdom
- DT Journal; General Review
- FS 008 Neurology and Neurosurgery
  - 018 Cardiovascular Diseases and Cardiovascular Surgery
  - 030 Pharmacology
  - 032 Psychiatry
  - 037 Drug Literature Index
  - 039 Pharmacy

- LA English
- SL English
- ED Entered STN: 30 Apr 2001 Last Updated on STN: 30 Apr 2001
- With an exponentially increasing body of scientific evidence pointing AB toward the potential of conotoxins for treatment of a wide variety of nervous system and associated neurological disorders, there has been an explosion of activity in this patent area with more than eighty new patents and PCT publications in the past five years. With the emergence of ziconotide (SNX-111, .omega.-conotoxin MVIIA) as the first clinically used conotoxin for treatment of a neurological disorder, the first part of the new millennium is likely to see many more new filings in this field. The majority of the applications from this period focus on those classes of conopeptides that interact with nicotinic acetylcholine receptors (nAChRs) together with those that block voltage-gated ion channels. arena has to date been dominated by three research groups: Neurex (a wholly-owned subsidiary of Elan, South San Francisco, CA, USA), Xenome and the Institute for Molecular Bioscience (IMB), University of Queensland (Melbourne, Australia) and Cognetix (Salt Lake City, UT, USA) together with the University of Utah Research Foundation and the Salk Institute for Biological Studies (La Jolla, CA, USA).
- L4 ANSWER 12 OF 12 MEDLINE on STN
- AN 2006631497 MEDLINE
- DN PubMed ID: 17064074
- TI Cyclic MrIA: a stable and potent cyclic conotoxin with a novel topological fold that targets the norepinephrine transporter.
- AU Lovelace Erica S; Armishaw Christopher J; Colgrave Michelle L; Wahlstrom Maria E; Alewood Paul F; Daly Norelle L; Craik David J
- CS Institute for Molecular Bioscience, University of Queensland, Brisbane, Queensland 4072, Australia.
- SO Journal of medicinal chemistry, (2006 Nov 2) Vol. 49, No. 22, pp. 6561-8. Journal code: 9716531. ISSN: 0022-2623.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
- LA English
- FS Priority Journals
- EM 200612
- ED Entered STN: 27 Oct 2006 Last Updated on STN: 19 Dec 2006 Entered Medline: 5 Dec 2006
- Conotoxins, disulfide-rich peptides from the venom of cone snails, have AΒ created much excitement over recent years due to their potency and specificity for ion channels and their therapeutic potential. One recently identified conotoxin, MrIA, a:13-residue member of the chi-conotoxin family, inhibits the human norepinephrine transporter (NET) and has potential applications in the treatment of pain. In the current study, we show that the beta-hairpin structure of native MrIA is retained in a synthetic cyclic version, as is biological activity at the NET. Furthermore, the cyclic version has increased resistance to trypsin digestion relative to the native peptide, an intriguing result because the cleavage site for the trypsin is not close to the cyclization site. The use of peptides as drugs is generally hampered by susceptibility to proteolysis, and so, the increase in enzymatic stability against trypsin observed in the current study may be useful in improving the therapeutic potential of MrIA. Furthermore, the structure reported here for cyclic MrIA represents a new topology among a growing number of circular disulfide-rich peptides.